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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,268	06/13/2006	Toshimi Matsumoto	MBJ-0525	8222

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CURATOLO SIDOTI CO., LPA
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CLEVELAND, OH 44145

EXAMINER

PEZZUTO, HELEN LEE

ART UNIT	PAPER NUMBER
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1796

MAIL DATE	DELIVERY MODE
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10/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,268

Applicant(s)

MATSUMOTO ET AL.

Examiner

Helen L. Pezzuto

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/29/05</u> | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1713

DETAILED ACTION

Response to Amendment

Applicant's amendment to claims 1, 3-6, 8, 12, and the addition of claims 14-20 filed in the preliminary amendment on 6/13/06 is acknowledged. Currently, claims 1-20 are pending in this application.

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 9/29/05 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

2. The disclosure is objected to because of the following informalities: The chemical structures on pages 4-5, and 8-9 are incomplete.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1713,

4. Claims 1-2, and 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 18, an "and" should be added after " $6 \leq m_1 + m_2 \leq 25$;" to be consistent with the Markush format.

In claim 2, the recited "average molecular weight" is indefinite, as molecular weight for a polymer should be defined by one of the standard types (i.e. Mw, Mn, etc).

In claim 8, lines 2-3, it is noted that "polycarboxylic acid type copolymers" is recited twice. The recited "polycarboxylic acid type copolymer comprising vinyl alcohol" is indefinite.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1713

6. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht et al. (US-425 or US-517) or WO 01/58579 A1 in view of Yamashita et al. (US-944) or Yaguchi et al. (US-220).

US 5,798,425 to Albrecht et al. discloses a copolymer suitably used as a cement additive, comprising 10-90 mol% of an unsaturated dicarboxylic acid units Ia or Ib, 1-89 mol% of an oxyalkylene glycol alkenyl ether unit of formula II, and 0.1 to 10 mol% a third component defined by formula IIIa or IIIb (col. 2, line 33 to col. 5, line 29; col. 6, lines 35-49). Specifically, prior art unsaturated dicarboxylic acid derivative Ia and Ib fall within the scope of the instant formula B, the oxyalkylene glycol alkenyl ether embraces the instant formula A, and prior art third recurring unit encompasses the instant formula C when S=hydrogen and T=COOR⁵. Prior art third recurring unit also embraces the further comonomer expressed in claim 17 (i.e. a diester of an unsaturated dicarboxylic acid). Patentees further discloses the inclusion of up to 50 mol% of unsaturated acrylic or methacrylic acid derivatives such as methyl methacrylate and hydroxyethyl methacrylate, further encompassing the instant formula C (col. 5, lines 30-42; col. 8, lines 53-62).

Art Unit: 1713

Similarly, US 6,777,517 B1 to Albrecht et al. discloses a copolymer comprising 51-95 mol% of unsaturated monocarboxylic or diacboxylic acid derivatives represented by formulas Ia, Ib, or Ic, 1-48.9 mol% of an oxyalkylene glycol ether as set forth in formula II, and 0.1 to 5 mol% of structural units of the formula IIIa or IIIb, 0-47.9 mol% of recurring units of formula IVa and IVb, defined within the instant formula B, A, C, and B, respectively (col. 2, line 38 to col. 7, line 42; col. 7, line 58 to col. 8, line 37). Patentees further suggest adding up to 50 mol% of vinyl or unsaturated (meth)acrylic derivatives such as methyl methacrylate, (meth)acrylamide, methyl acrylate, butyl acrylate (col. 7, lines 43-53).

WO 01/58579 A1 discloses a dispersant composition comprising a polymer derived from polyalkylene oxide group, anionic and cationic groups-containing recurring units. Specifically, prior art teaches a polyalkylene oxide group-containing unit defined by formula (I), an anionic monomer including those having carboxyl groups (i.e. carboxylic acid/anhydride monomers) which fall within the scope of the instant formula A and B, respectively (page 6-8, 11-13, 16-17, 27-28). Prior art reference further suggest adding monomer (F), including (meth)acrylic acid alkyl and

Art Unit: 1713

hydroxyl ester (F1) and (F2), and (meth)acid amides (F3), defined within the scope of the instant formula C (page 19).

Prior art references discussed above specifically teach polymeric cement additives comprising the presently claimed recurring units A, B, and C in the recited proportions. Accordingly, it would have been obvious to one having ordinary skill in the art to formulate the copolymer additive as taught, motivated by the reasonable expectation of success. Regarding the cement additives species expressed in claims 8, 12, and 14-16, the examiner is of the position that these are conventionally included in cement compositions, as taught in closely analogous US 6,911,494 B2 (col. 24, line 51 to col. 26, line 40) and US 6,762,220 B1 to Yaguchi et al. (col. 4, lines 41-50). Accordingly, one having ordinary skill in the art would have readily envisaged their inclusion, in light of their having been disclosed as suitable cement additives for property enhancement as taught. Once the motivation for their inclusion is provided, discovering the optimum or workable ranges involves only routine skill in the art. Thus, rendering obvious the instant claims.

Art Unit: 1713

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

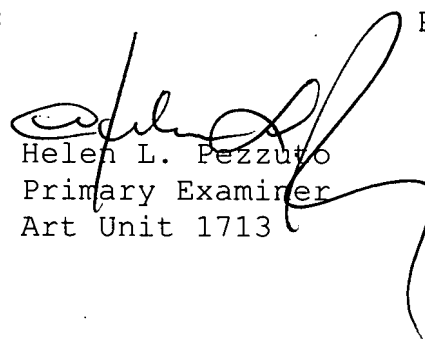
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/551,268

Art Unit: 1713

Page 8



Helen L. Pezzuto
Primary Examiner
Art Unit 1713

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